



## SABIC® PP PHC31-81

### PP impact for Automotive injection moulding

#### Description:

SABIC® PP PHC31-81 is a grade which combines high stiffness with good impact strength. Its excellent flow properties and narrow molecular weight distribution permits fast cycle-times and injection moulding of articles demanding low warpage and high dimensional stability. This grade is formulated with a combined processing and UV-stabilisation package. Typical applications are automotive components. It is also available in a general purpose additive package.

SABIC® PP PHC31-81 is a designated automotive grade.

IMDS ID: 80775790

#### Typical values

Revision 20140109

Properties	Unit (Si)	Values	Test methods
<b>Polymer properties</b>			
<b>Melt flow rate (MFR)</b> at 230 °C and 2.16 kg	g/10 min	<b>15</b>	ASTM D 1238
<b>Density</b>	kg/m <sup>3</sup>	<b>905</b>	ASTM D 792 SABIC method
<b>Mould shrinkage</b> 24 hours after injection moulding <sup>1)</sup>	%	<b>1.6</b>	
<b>Formulation</b>			
<b>UV stabilized</b>	-	<b>Yes</b>	-
<b>Anti static agent</b>	-	<b>No</b>	-
<b>Nucleating agent</b>	-	<b>No</b>	-
<b>Mechanical properties</b>			
<b>Tensile test</b>			ASTM D 638
stress at yield <sup>2)</sup>	MPa	<b>25</b>	
strain at yield <sup>2)</sup>	%	<b>5</b>	
stress at break	MPa	<b>17</b>	
secant modulus at 1% elongation <sup>3)</sup>	MPa	<b>1350</b>	
<b>Izod impact notched</b>			ASTM D 256A
at 23 °C	J/m	<b>100</b>	
at 0 °C	J/m	<b>75</b>	
at -20 °C	J/m	<b>50</b>	
<b>Rockwell hardness</b>			ASTM D 785
R-scale	-	<b>104</b>	
<b>Thermal properties</b>			
<b>Heat deflection temperature</b>			ASTM D 648
at 1.80 MPa (HDT/A)	°C	<b>60</b>	
at 0.45 MPa (HDT/B)	°C	<b>85</b>	
<b>Vicat softening temperature</b> <sup>4)</sup>			ASTM D 1525
at 10 N (VST/A)	°C	<b>150</b>	
at 50 N (VST/B)	°C	<b>76</b>	

1) All measurements on injection molded samples.

2) Speed of testing: 50 mm/min

3) Speed of testing: 5 mm/min

4) Temperature rate: 120°C/h



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#### **Quality:**

SABIC Europe is fully certified in accordance with the internationally accepted quality standard ISO9001.

#### **Storage and handling:**

Avoid prolonged storage in open sunlight, high temperatures (<50 °C) and /or high humidity as this could well speed up alteration and consequently loss of quality of the material and /or its packaging. Keep material completely dry for good processing.

**Disclaimer.** The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

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Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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